



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/560,362

04/27/2006

Evripidis Koukouravas

1006/0158PUS1

9012

60601 7590 04/26/2011
Muncy, Geissler, Olds & Lowe, PLLC
4000 Legato Road
Suite 310
FAIRFAX, VA 22033

EXAMINER

FORD, JOHN K

ART UNIT

PAPER NUMBER

3784

MAIL DATE

DELIVERY MODE

04/26/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,362	Applicant(s) KOUKOURAVAS ET AL.	
	Examiner John K. Ford	Art Unit 3784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's response of October 25, 2010 (RCE and amendment) has been studied carefully. In view of the presentation of amended independent claim 1 (as well as new dependent claim 23) directed to subject matter that is not supported by the original disclosure, the claims are rejected here. Furthermore, for reasons detailed below, even if the new limitations to claim 1 and claim 23 were supported by the original disclosure, the prior art (namely JP 5-58144) clearly discloses those limitations.

Applicant has confirmed that there is on-going foreign prosecution of applications corresponding to this application. Applicant has submitted a translation of a final rejection by the JPO based on JP 5-58144 (among other references). Applicant has also submitted allowed claims from EP 1636056. It is noted that JP 5-58144 (the primary reference here and in the JPO prosecution) is not listed as a reference (in box "(56) Entgegenhaltungen:") in the EPO prosecution. The allowance of claims in the EPO is deemed to be flawed to the extent that the closest prior art (JP 5-58144) was apparently not considered during that prosecution. If the examiner understanding of the flaw in the EPO prosecution is incorrect, please explain where/how JP 5-58144 was considered in the EPO prosecution.

Translations of any further rejections (as they become available) during further prosecution made by these foreign patent offices of claims similar to those presented here should be provided pursuant to applicant's duty of disclosure so as to allow the

Art Unit: 3784

examiner to intelligently understand how his counterparts worldwide view this claimed subject matter. See MPEP 2001.06(a), incorporated here by reference.

Claim Interpretation:

Apparatus claims are interpreted to be directed to a final product not to a method of assembly or to units that are not of part of the final product that are apparently left on the factory floor during assembly. Therefore, new claims 21 and 22 are interpreted as claiming either a two zone final product or three zone final product in the case of claim 21 and as claiming any one of a two zone final product or three zone final product or four zone final product in the case of claim 22.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-18 and 20-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1 the limitation “wherein the housing [3] has at least one heat receiving device [21] for at least one further component [25, 31] being configured to adapt the air conditioning unit to condition a plurality of zones within the motor vehicle and being configured to fit completely inside said interior chamber [of housing 3]” (reference numerals added for clarity, as found in allowed claim 1 of EP 1636056) is not supported by the original description of the invention (including the original specification, drawing figures and original claims). Similarly, the limitation in new claim 23, that the “at least one further component is mounted completely inside said interior chamber” to the extent that is attempting to claim the entire modular component is mounted completely inside said interior chamber of housing 3 is also not supported by the original disclosure. In the discussion below, claim 1 is critiqued with the understanding that the same critique is equally applicable to claim 23.

First, the specification and original claims (claims 1-17) contain no language that even remotely resembles the “being configured to fit completely inside said interior chamber” limitation. Therefore, applicant must be either relying on non-original claim 19 (to the extent it can be interpreted to support the new matter in claim 1, it also is deemed to contain new matter to the application) or the drawing Figures.

With respect to non-original claim 19, it did not state that the further component (25, 31) was located entirely within or completely inside the interior chamber of the housing (3), but rather that the “at least one modular device is configured so that the

Art Unit: 3784

entire at least one modular device can be accommodated in the at least one housing” (emphasis supplied). A component located “entirely within or completely inside” another component and an entire component accommodated in another component are two very clearly different things, notwithstanding counsel’s attempt to equate them.

Locating something “in” something else does not necessarily mean “entirely within” as illustrated by the simple statement “I had new windows put in my house”. The windows form part of the envelope of the house, but they are not “entirely within or completely inside” the house. In fact, if “in” meant “entirely within or completely inside”, as is implicit in counsel’s amendment, it would be bizarre to say “I had new windows put entirely within in my house.” It would be equally bizarre to say “I had new windows put completely inside in my house.” Clearly, claim 19 (which simply broadly claims that the modular device is located “in” (interpreted to form a part of the housing) does not support the new limitation (“completely inside”) added to claim 1 and “completely inside” limitation added to claim 23. Alternatively, if claim 19 is construed to somehow support the new limitation added to claims 1 and 23, claim 19 (to the extent that it lends itself to being construed this way) is itself new matter to the original disclosure.

There is nothing in the original drawings to support the “... being configured to fit completely inside said interior chamber [of housing 3]” limitation. In fact, comparisons of Figure 2 (apparently showing the housing 3 without the modular element inserted) and Figures 1, 3, 4, 7 and 8 (apparently showing the housing 3 with different embodiments of the modular element inserted) suggest that the right hand portion of the

Art Unit: 3784

respective modular elements may, in fact, be located outside of the housing 3. At any rate, there is nothing in the drawing figures approaching the required certainty of disclosure under 35 USC 112, first paragraph, to support the new limitation in claim 1 of the further component "... being configured to fit completely inside said interior chamber [of housing 3]." On the requirement, not being met here, of "necessary and only reasonable construction" to be given to a disclosure under 35 USC 112, first paragraph, see Wagoner v. Barker, 175 USPQ 85 (CCPA 1972).

The limitation "modular" remains vague and confusing, notwithstanding counsel's assertions otherwise, however the issue is deemed moot in light of the cancellation of this limitation from the claims. In the previous rejection the examiner stated that the nature of limitation "modular" was not understood from either the specification or the claims. What makes these devices modular? How are they modular? In the 2 June 2010 response to this, applicant has included a definition from an on-line dictionary that defines "modular" as "of, relating to, or based on a module or a modulus" or "constructed with standardized units or dimensions for flexibility and variety in use". From the specification applicant also quotes the following found on page 2, line 35: "A modular device is to be understood as meaning either an individual component or a plurality of components which have been assembled to form one unit and at least serve a common purpose." The examiner maintains that all of these definitions of "modular" are ambiguous because they use ambiguous terms to define the ambiguous term "modular". The on-line dictionary discusses "standardized units" (whatever

Art Unit: 3784

“standardized” is supposed to mean in the context of “units”) **or** “standardized dimensions” (whatever “standardized” is supposed to mean in the context of “dimensions”) “for flexibility and variety in use”. This latter phrase “for flexibility and variety in use” is extremely ambiguous. How would a would-be infringer, short of a lawsuit, be able to determine whether of not his allegedly infringing modular device met the limitation “for flexibility and variety in use” or not? What standard does one use to measure “flexibility and variety in use”? The examiner cannot imagine a more subjective definition. Similarly, the definition in the specification: “either an individual component or a plurality of components which have been assembled to form one unit and at least serve a common purpose” is very different from the one in the on-line dictionary, but also has an ambiguous phrase: “at least serve a common purpose.” Would not every component or components in an air conditioning unit serve a “common purpose” of, for example, making the air conditioning unit operative? If not, what is the nature of this “common purpose”? Again, neither the claims nor the specification gives any concrete definition or yardstick by which to gauge one’s conduct. How would a would-be infringer, short of a lawsuit, be able to determine whether of not his allegedly infringing modular device “at least serve[d] a common purpose”?

The term “modular” remains indefinite notwithstanding counsel’s arguments to the contrary and is deemed to be even more indefinite as a consequence of the newly submitted on-line dictionary definition (that is materially different from that suggested by

Art Unit: 3784

the specification) as explained above. Counsel answered none of these questions in the response of October 25, 2010.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 8, 11, 17, 18 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 5-58144.

Regarding claims 1-5, 7, 8, 11 and 17-22, JP '144 shows a vehicular air conditioner unit having a housing (generally at 1), a first apparatus for exchanging heat (evaporator 3 and its associated compressor, condenser and expansion valve, not shown), a second apparatus for exchanging heat (heater 4), an air inlet (generally at 2a, 2b), an air outlet (see right side of Figures 2, 5 and 6) and an air flow control device (6, 8 and 9 and their subcomponent parts in the case of the plural zone embodiments). At least one further component (e.g. any one of the partition plates (9a, 9b, 9c, where they exist) and/or the dampers (8, 8a, 8b and 8c, where they exist)) is/are located entirely within the interior chamber of the housing and meets the limitation of "at least one further component being configured to adapt the air conditioning unit to condition a plurality of zones within the motor vehicle and being configured to fit completely inside

Art Unit: 3784

said interior chamber [of the housing]" is shown in Figures 1-4 (one zone), Figure 5 (two zone) and Figure 6 (three zone) between the heater 4 and the air outlets at the right side of Figures 2, 5 and 6.

This reference was submitted by applicant for consideration on the IDS received 7/30/10 without an English language translation. Applicant may obtain a machine language translation that is readily available to applicant (for free) at the JPO website and such a translation is not included here.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 9, 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-58144 as applied to claim 1 above, and further in view of Groemmer et al (USP 6,581,678).

Regarding claims 6, 9 and 10, to have added an optional electric heater immediately downstream of heater 4 of JP '144 would have been obvious to one of ordinary skill in the art as taught Groemmer at column 4, lines 60-67, incorporated here by

Art Unit: 3784

reference. Such electric heaters advantageously offer fast heat up of the vehicle on very cold days when the engine coolant can take a long time to warm up.

Regarding claim 22, to have added another structure 1b including another modular door 8b and another modular partition plate 9c and/or 9b) to Figure 6 of JP '144 would have been obvious in view of Groemmer which teaches a four zone system using three partitions. Such a modification would advantageously increase occupant comfort by allowing the rear seat occupants (like the front seat occupants) to individually control the temperature conditioning to their individual comfort level.

Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 5-58144 in view of JP 61-85218.

The explanation of JP '144, above, is incorporated here by reference. Regarding claims 12-16, it would have been obvious to one of ordinary skill in the art to have connected the compressor 1, condenser 2 (with two separate sections 2a and 2b controlled by valve 10), receiver 3 and expansion valve 4, back pressure valve 7 and return line 6 of JP 61-85218 to the evaporator 3 of JP '144 so that the evaporator 3 of JP '144 would perform its conventional cooling function (advantageously without freezing up the evaporator as taught by JP '218). Regarding claims 12-16, there are two flow paths 2a and 2b through the apparatus for the exchange of heat through which refrigerant passes. The two feeds for refrigerant branch upstream of valve 10. The

Art Unit: 3784

common discharge line takes the refrigerant to the receiver 3. In the June 2, 2010 amendment applicant has not commented upon or traversed any of the teachings of JP '218 and therefore the examiner assumes that applicant agrees with the obviousness conclusion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John K. Ford/

Application/Control Number: 10/560,362

Page 12

Art Unit: 3784

Primary Examiner, Art Unit 3784